Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A robot comprising:

a base member;

a moving platform operative as the end effector of the robot;

a plurality of adjustable links connecting said base member to said moving platform, the status of each of said plurality of adjustable links being known by means of a sensor associated with each of said plurality of links, the combined outputs of said plurality of sensors indicating the pose of said platform; and

a single additional sensor not associated with any single one of said links, connected between said base member and said moving platform,

wherein said single additional sensor provides an indication of an erroneous output in the reading of any one of said plurality of sensors.

2. (Previously presented) A robot according to claim 1 and wherein at least one of said adjustable links is a linear extensible link and said sensor associated with said linear extensible link is a length sensor.

3. (Canceled)

4. (Previously presented) A robot according to claim 1 and wherein at least one of said adjustable links is an angular rotational hinge, and said sensor associated with said angular rotational hinge is an angular sensor.

5. (Canceled)

6. (Previously presented) A robot according to claim 1 and wherein said single additional sensor is any one of a length sensor and an angular sensor.

7. (Canceled)

8. (Previously presented) A robot according to claim 1 and also comprising a controller which verifies at least one of the position and orientation of said moving platform as determined by the sensors associated with each of said plurality of links, by means of the output of said single additional sensor.

9. (Previously presented) A robot according to claim 8 and wherein said controller provides an absolute verification of at least one of the position and orientation of said moving platform in the event that any one sensor is providing an erroneous output.

10. (Canceled)

11. (Canceled)

12. (Previously presented) A robot according to claim 1 and wherein said plurality of extensible links is six links, and said single additional sensor is a seventh sensor.

13. (Previously presented) A robot according to claim 1 and wherein said plurality of links is four links, and said single additional sensor is a fifth sensor.

14. (Canceled)

15. (Previously presented) A robot according to claim 1 and wherein said robot is either of a parallel robot and a hybrid series-parallel robot.

16. (Canceled)

17. (Currently amended) A method of using a robot, comprising the steps of:

providing a robot comprising a base member, a moving platform operative as the end effector of the robot, and a plurality of adjustable links connecting said base member to said moving platform, the status of each of said adjustable links being known by means of a sensor associated with each of said links, and the combined outputs of said plurality of sensors indicating the pose of said platform;

connecting a single additional sensor not associated with any single one of said links, between said base member and said moving platform between known points thereon; and

using information from said single additional sensor to provide an indication of an erroneous output in the reading of any one of said plurality of sensors.

18. (Previously presented) A method according to claim 17 and wherein said step of using information comprises verifying that at least one of the position and orientation of said moving platform determined by the sensors associated with each of said plurality of links, is consistent with at least one of the corresponding relative position and orientation of said known points, as determined by said single additional sensor.

19. (Previously presented) A method according to claim 17 and wherein at least one of said adjustable links is a linear extensible link, and said sensor associated with said linear extensible link is a length sensor.

20. (Canceled)

21. (Previously presented) A method according to claim 17 and wherein at least one of said adjustable links is an angular rotational hinge, and said sensor associated with said angular rotational hinge is an angular sensor.

22. (Canceled)

23. (Previously presented) A method according to claim 17 and wherein said single additional sensor is any one of a length sensor and an angular sensor.

24. (Canceled)

25. (Previously presented) A method according to claim 17 and wherein said information further provides an absolute verification of at least one of the position and orientation of said moving platform in the event that any one sensor is providing an erroneous output.

26. (Canceled)

27. (Canceled)

28. (Previously presented) A method according to claim 17 and wherein said plurality of extensible links is six links, and said single additional sensor is a seventh sensor.

29. (Previously presented) A method according to claim 17 and wherein said plurality of links is four links, and said single additional sensor is a fifth sensor.

30. (Canceled)

31. (Previously presented) A method according to claim 17 and wherein said robot is either of a parallel robot and a hybrid series-parallel robot.

32 -34. (Canceled)

35. (New) A robot according to claim 1, wherein said sensors have a rated lifetime T, such that the probability of failure of any one of said sensors during a procedure lasting a length of time t is given by t/T, and wherein if said sensors have at least N increments, the probability P that an incorrect motion arising from the simultaneous failure of two of said sensors would remain undetected by said single additional sensor, is given by the equation $P = (1/N) \cdot (t/T)\ 2$.

36. (New) A robot according to claim 35, and wherein said sensors have a reliability such that said probability P is less than the probability of failure allowable by an accepted safety requirement for the procedure performed by the robot, such that the probability that two sensors or more fail simultaneously in a mode that makes said failures undetectable is statistically insignificant in relation to said safety requirement for the procedure performed by the robot.

37.(New) A robot according to claim 36, wherein the use of information from said single additional sensor provides a statistically acceptable indication of an erroneous output in the reading of said two or more of said sensors.

38. (New) A method according to claim 17, wherein said sensors have a rated lifetime T, such that the probability of failure of any one of said sensors during a procedure lasting a length of time t is given by t/T, and wherein if said sensors have at least N increments, the probability P that an incorrect motion arising from the simultaneous failure of two of said sensors would remain undetected by said single additional sensor, is given by the equation $P = (1/N) \cdot (t/T)\ 2$.

39.(New) A method according to claim 38, and wherein said sensors have a reliability such that said probability P is less than the probability of failure allowable by an accepted safety requirement for the procedure performed by the robot, such that the probability that two sensors or more fail simultaneously in a mode that makes said failures undetectable is statistically insignificant in relation to said safety requirement for the procedure performed by the robot.

40. (New) A method according to claim 39, wherein the use of information from said single additional sensor provides a statistically acceptable indication of an erroneous output in the reading of said two or more of said sensors.